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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,113	01/23/2002	Hideaki Shoji	217903US2PCT	6602
22850	7590	10/08/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			CHEN, SHIH CHAO	
			ART UNIT	PAPER NUMBER
			2821	
DATE MAILED: 10/08/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/030,113

Applicant(s)

SHOJI ET AL.

Examiner

Shih-Chao Chen

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ha et al. (U.S. Patent No. 6,137,445).

Regarding claim 1, Ha et al. teaches in figures 3-8 an antenna element comprising: a first antenna unit [410] formed so as to extend in one direction; and a second antenna unit [420] extending substantially orthogonal to the extending direction of the first antenna unit [410], having an electrical length of substantially  $(\lambda/2) \times A$  (A is an integer) (See col. 4, lines 28-30), and coupled to the first antenna unit [410], wherein the first antenna unit [410] and the second antenna unit [410] are attached in consecutive order to a feeding point [412].

Regarding claim 2, Ha et al. teaches in figures 3-8 the antenna element wherein the first antenna unit [410] has an electrical length of approximately  $(\lambda/4) + (\lambda/2) \times B$  (B is an integer).

Regarding claim 3, Ha et al. teaches in figures 3-8 the antenna element wherein the first antenna unit [410] includes a meander line antenna.

Regarding claim 4, Ha et al. teaches in figures 3-8 the antenna element wherein the second antenna unit [420] includes a line antenna.

Regarding claim 5, Ha et al. teaches in figures 3-8 the antenna element wherein the line antenna [420] includes a monopole antenna.

Regarding claim 6, Ha et al. teaches in figures 3-8 the antenna element further comprising a substrate [430] with a conductive surface [431], the first antenna unit [410] being provided on the surface of the substrate [430] with a dielectric therebetween, and the second antenna unit [420] being provided so as to extend from the substrate [430].

Regarding claim 8, Ha et al. teaches in figures 3-8 a portable information terminal comprising: a main unit case [401]; and an antenna element [410, 420] including a first antenna unit [410] arranged within the main unit case [401], and formed to extend in one direction, and a second antenna unit [420] extending substantially orthogonal to the extending direction of the first antenna unit [410], and arranged projectable from the main unit case [401], having an electrical length of approximately  $(\lambda/2) \times A$  (A is an integer) (See col. 4, lines 29-31), and coupled to the first antenna unit [410], wherein the first antenna unit [410] and the second antenna unit [410] are attached in consecutive order to a feeding point [412].

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yukihiro et al. (JP 11274828 A) in view of Gamalielsson et al. (U.S. Patent No. 6,388,626).

Yukihiro et al. teaches every feature of the claimed invention except for the line antenna located in the main unit case.

Gamalielsson et al. teaches in figure 3 the line antenna (11) located in the main unit case (2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the line antenna as shown in Yukihiro et al. by using the line antenna located in the main unit case as taught by Gamalielsson et al. in order to have the rod antenna element and the internal element have a relatively small electromagnetic interaction (See col. 2, lines 33-35).

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-6 and 8-9 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence***

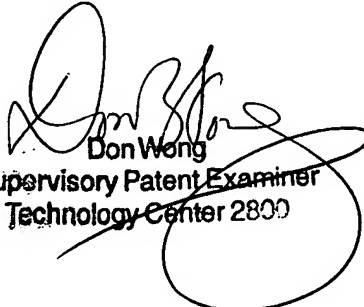
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (703) 306-2721. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Shih-Chao Chen  
Examiner  
Art Unit 2821

SXC  
September 30, 2003

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800